



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/566,296

10/10/2007

Gary Fozzard

745691-42

9995

78198

7590

11/06/2009

Studebaker & Brackett PC

One Fountain Square

11911 Freedom Drive, Suite 750

Reston, VA 20190

EXAMINER

RAHMJOO, MANUCHER

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

11/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,296	Applicant(s) FOZZARD, GARY	
	Examiner MIKE RAHMJOO	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7, 9-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7, 9-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

As per claim 1, applicant claims "...and to change, under user control, the appearance of the selected region(s) of the image...". Applicant recites said portion of the claim in paragraphs [1], [2], [5] and [6]. Paragraph [2] discloses "It is known that the appearance of representations of surfaces, such as wall, ceiling and/or floor surfaces, in an environment such as a room of a domestic dwelling, *can be changed* under user control by means of software applied to a computer which is furnished with a digital image of the room. The image may be, for example, derived from a photograph of the room, or a chosen area of it. The photograph may be taken on a digital camera, enabling direct input to the computer, or it may be a conventional photograph which is scanned into the computer to provide the digital image." However, said "change" is as evident is disclosed as being "known" and nowhere in the entire specification is there any teachings of how said change is performed and in particular to selected regions as claimed.

Applicant further claims "a visualization module configured to display...". Paragraph [0026] recites "The photograph, unless taken on a digital camera, needs to be digitized (e.g. by scanning) for input to a computer running the required visualization software, which guides the user through a sequence of operations designed to select

Art Unit: 2624

the regions of the image corresponding to the surfaces in question, delineate the outline and mask out any features, such as doors and windows, which are not part of the planned review.” Examiner fails to see any displaying via said module in paragraph [26] or elsewhere.

Applicant further claims a “a mapping module...”. Examiner fails to see said module throughout the specification.

Claims 3- 7 and 10 are objected to by the virtue of their dependency from claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3- 7 and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

All claims intrinsic with the coordinating conjunction "for", linking verb "to be" (i.e., claim 9), and the phrases "configured to" (i.e., claim 1) or "capable of" (i.e., claim 9) usually render the following element non-assertive or more simply passive. In others words that which follows "for", "to be", "adapted to", "configured to" and or "capable of" usually does not take place and is merely an intended use, thus non-functional and therefore most likely without patentable weight.

Art Unit: 2624

In general claim language with "for" usually only suggests intended use and adds no further limitation to the claims.

The subject matter of a properly construed claim is defined by the terms that limit its scope. It is this subject matter that must be examined. As a general matter, the grammar and intended meaning of terms used in a claim will dictate whether the language limits the claim scope. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

(A) statements of intended use or field of use,

(B) "adapted to" or "adapted for" clauses,

(C) "wherein" clauses, or

(D) "whereby" clauses.

This list of examples is not intended to be exhaustive. See also MPEP § 2111.04.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

In light of the rejections/ objections made, claims 1 and 3- 7 and 10 are rejected under 35 U.S.C. 112 first and second paragraphs as attempting to define a product (i.e., machine or apparatus) entirely by virtue of its function, in the absence of any recited structure.

Products must distinguish over the prior art in terms of their structure (or structure + structure's function when claimed functionally) rather than function alone (MPEP 2114). Therefore, an "apparatus" not having structural limitations fails to "particularly point out and distinctly claim ..." the invention in accordance with 35 U.S.C. 112, 2nd paragraph.

Furthermore, while the specification disclosure may be enabling for a plurality of structural elements performing the claimed functions [1], the specification does not reasonably provide enablement for a single structural element (or no structural elements) performing all of the claimed functions. That is, given the claim in question, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims ("A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph" because a single means claim covers "every conceivable means for achieving the stated purpose" and "the specification disclosed at most only those means known to the inventor" - *MPEP, at paragraph 2164.08(a)*). Currently, the single claimed structural element (i.e., a "template" device) that performs a multitude of functions, where the functions are disclosed as being performed by separate structural elements violates the 112, 1st paragraph enablement requirement. That is, a single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known

Art Unit: 2624

to the inventor (In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983)).

Applicant is advised to define the apparatus by virtue of the individual structural element that serve to perform the individual functions recited in the corresponding method claim.

[1] Even when an apparatus is disclosed as being computer implemented (e.g., software implemented on hardware), the requirement remains that there be some structure recited in the body of the claim (e.g., a processor and a memory storing a program which when implemented performs the method steps). For purposes of “means plus function” language, individual disclosed steps corresponding to computer program elements operating on a processor (e.g., inputting, filtering, detecting and resolving) may be considered as separate means (*Dossel*, 115 F.3d at 946–47, 42 USPQ2d at 1885).

Claims 3- 7 and 10 are rejected by virtue of their dependency upon claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2624

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3- 6 and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Petrich (US PAP 2003/ 0002730).

As per claims 1 and 9 and best understood, Petrich teaches a template device (i.e., target device 1703) for temporarily attaching to each of one or more surfaces a template device carrying markings of known dimensions and at known relative orientations (corresponding to target device 102 placed on the ground at the time of capture) see [0027] and fig. 13- 16. [0045] teaches said target to be of different shapes (i.e., flat or rigid central portion and 3D dome or three dimensional central portion) and sizes with different areas (i.e., 1601- 1604) of proportional dimension and size;

providing a photograph of said surface with the template device in situ (corresponding to fig. 1- 2 with target 102 placed on the ground);

inputting a digital representation of said photograph to a computer provided with software capable of displaying a digital image thereof (corresponding to the computer software in the abstract to ascertain and record attributes of the photo composites); and

a visualization module (i.e., image analysis software in [33]) to display a digital image of the photograph and using the software to delineate in the displayed image an outline of each of the one or more surfaces, and thereby select a region of the image which corresponds to each of the one or more surfaces (corresponding to directing the position of the cameras and the attributes (i.e., lighting direction, perspective and scale) of the light source 1712 of the background image 1708 to combine footage with

Art Unit: 2624

computer animation) see [0046] and figure 17. [0026] teaches the recorded attributes or attribute values (i.e., information provided by template) of the subject image may be used to create virtual reality backgrounds (i.e., defining of the geometric characteristics of the surface) produced from a three-dimensional computer model rendering of an environment having similar lighting, perspective, and scale conditions. [0033] of Petrich also teaches software (i.e., computer utilizing software) and the target device (702 and 706) and the ground surface angle (i.e., geometric characteristics of the surface) mathematically ascertained therefrom into the computer;

a mapping module (i.e., computer software in the abstract and [33]) and wherein the markings on the template device(s) provide the computer with data permitting perspective characteristics of each of the one or more surface(s) to be determined/changed by the computer, in accordance with the perspective characteristics of the respective surfaces (i.e., combining/ using images with assigned attributes with other images to create virtual reality background and photorealistic montage/ composite via user) see [26];

As per claim 3, Petrich teaches said markings include components defining a rectangular frame with opposing sides being substantially parallel, thereby permitting the accurate derivation of perspective data for the surface (corresponding to other shapes used such as rectangular shape as well as others which are symmetrical) see [0045].

As per claim 4, Petrich broadly teaches the parallel sides are substantially aligned with perspective defining edges of said surface (corresponding to other shapes

Art Unit: 2624

used such as rectangular, elliptical, rings and as well as others shapes which are symmetrical and which may be applied; said applied shape conforming to or substantially aligned with corresponding edge of surface) see [0045].

As per claim 5, Petrich teaches at least a portion of the template device is formed to reflect incident light to a predetermined extent, thereby permitting the derivation of suitable brightness data for the surface(corresponding to the target device 801 used to reflect the key light source) see [0035].

As per claim 6, Petrich teaches the template device further comprises a directional indicator (i.e., lighting direction and perspective which indicate respective direction of light and viewing direction provided by target device) to indicate the orientation of patterns or ornamentation incorporated by means of the software into surface treatments to be displayed on the image of said surface(corresponding to the recorded attributes or attribute values (i.e., information provided by the target device) of the subject image may be used to create virtual reality backgrounds (i.e., defining of the geometric characteristics of the surface) produced from a three-dimensional computer model rendering of an environment having similar lighting direction, perspective, and scale condition) see [0026].

As per claim 10, Petrich teaches to determine provisional perspective characteristics from the template markings (corresponding to target device 102 placed on the ground at the time of capture) see [0027] and fig. 13- 16. [0045] teaches said target to be of different shapes (i.e., flat or rigid central portion and 3D dome or three

Art Unit: 2624

dimensional central portion) and sizes with different areas (i.e., 1601- 1604) of proportional dimension and size;

to select line segments from the outline delineated by the user for that surface based on said provisional perspective characteristics (corresponding to the recorded attributes or attribute values (i.e., information provided by template) of the subject image may be used to create virtual reality backgrounds (i.e., defining of the geometric characteristics of the surface) produced from a three-dimensional computer model rendering of an environment having similar lighting, perspective, and scale conditions) see for example [26].; and

to identify the perspective characteristics with higher accuracy based on said selected line segments (i.e., combining attributes for realistic photo montage) see for example [26]. Claim 27 of Petrich also teaches measuring attributes with respect to lines and points.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrich in view of Kumar et al (US Patent 5982383), hereinafter, Kumar.

As per claim 7, Petrich does not teach said directional indicator comprises a broad arrowhead device.

However, Kumar teaches said directional indicator comprises a broad arrowhead device(corresponding to direction template 62 of fig. 2) see fig. 2. Fill pattern button 92 of fig. 3 also allows a user to define a pattern for a given shape.

It would have been made obvious to one of ordinary skilled in the art at the time the invention was made to incorporate the teachings of Kumar into Petrich to provide intelligent templates and pre-drawn shapes that make creating graphics much simpler and quicker and thus increase the productivity of a person or persons by allowing the user to create clean, professional drawings see column 1 lines 60- 65.

Response to Arguments

Applicant's arguments filed 8/28/09 have been fully considered but they are not persuasive.

In response to applicant's remarks on page 8 regarding claim 9 (or claim 1), applicant argues "Applicant respectfully asserts that at no point in Petrich are specific surfaces of the blue-screen backdrop delineated in the image of the scene so that their perspective characteristics can be individually determined and their appearance changed accordingly", examiner fails to see said language as claimed in claim 9. Furthermore examiner fails to see any arguments of the portion recited and used for rejection and therefore applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable

Art Unit: 2624

invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Examiner would point to the rejection of the record for said claim.

In response to applicant's remarks regarding claim 7, the same response as provided above as to lack of arguments applies and mere allegation appear.

Furthermore, on page 8 applicant points to limitations of claim 1 whereas claim 7 is addressed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

November 2, 2009

/Anand Bhatnagar/
Primary Examiner, Art Unit 2624
November 4, 2009